Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method executed on a computer system for managing a cache including entries that correspond to seat availability information, the method comprises:

proactively determining if a stored answer in the cache is stale, the stored answer corresponding to seat availability information for a seat on a mode of transportation, with determining being based on a criterion for seat availability information, which criterion is determined based on needs of a travel planning system that makes queries to the cache for obtaining the seat availability information; and if the stored answer pertaining to seat availability information is stale,

sending an availability query to a source of seat availability information for the mode of transportation based on determining that the answer was stale.

2. (Previously Presented) The method of claim 1 wherein the mode of transportation is air and determining if the stored answer is stale further comprises:

monitoring availability queries made to the cache by a travel planning system to determine which flights, sets of flights, the flights for a certain day, date, or market have a high demand for availability information.

3. (Previously Presented) The method of claim 1 wherein determining if the stored answer is stale comprises:

scheduling a list of keys where the list of keys are identifiers of specific instances of transportation to update or add, and for each key on the list in the order given,

submitting a query to the availability source; and

storing the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

4. (Previously Presented) The method of claim 1 wherein determining if the stored answer is stale comprises:

scheduling multiple lists, by processing one entry from each list by a round-robin polling through the lists in turn until one entry has been processed from each list;

returning to the first list to process the next entry;

generating an entry for each entry on the list in the order given, by

submitting a query to the availability source; and

storing the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

5. (Previously Presented) An availability system used for a travel planning system comprises:

a cache including a plurality of entries of availability information of seats for a mode of transportation; and

a cache manager that manages a quality level of entry information in the cache by proactively populating the cache to maintain a high quality level of entries of seat availability information in the cache, with the quality level of the seat availability information in the cache determined by evaluating entries in the cache according to a criterion related to needs of a travel planning system that makes queries to the cache for obtaining seat availability information, and that sends an availability query to a source of seat availability information for the mode of transportation based on determining that the seat availability information in the cache was stale.

6. (Original) The availability system of claim 5 wherein the cache manager determines when an entry should be added to the cache.

7. (Original) The availability system of claim 5 wherein the cache manager determines when an entry should be deleted from the cache.

8. (Original) The availability system of claim 5 wherein the cache manager determines when an entry already in the cache should be modified.

9. (Original) The availability system of claim 5 wherein entries to be added, modified, or deleted are obtained by asynchronous notification from external systems.

10. (Original) The availability system of claim 9 wherein entries to be added, modified, or deleted are taken from a list or multiple lists of predetermined entries.

11. (Original) The availability system of claim 10 wherein the entries in the list include predetermined orderings or priorities.

12. (Original) The availability system of claim 10 wherein entries to be added, modified, or deleted are determined from the distribution or nature of availability queries posed to the cache.

13. (Original) The availability system of claim 10 wherein entries to be added, modified, or deleted are determined by using a predictor or model of the availability queries which are likely to be posed or are likely to be useful in the future.

14. (Previously Presented) The availability system of claim 13 wherein the predictor or model is based on a deterministic, probabilistic, or statistical classifier or predictor, databases or cache of historical data or previously predicted information, simulations of various availability systems and actual availability data sources.

15. (Original) The availability system of claim 10 wherein entries to be added, modified, or deleted are determined by comparing actual answers or cached answers to predictions made by a predictor or model of the availability information.

16. (Previously Presented) The availability system of claim 13 wherein the predictor used to guide the cache manager operation predicts the rate of change or time of change of the seat availability.

17. (Original) The availability system of claim 10 wherein entries to be added, modified, or deleted are determined by prior knowledge, such as busy travel days, important or busy markets, or busy travel times.

18. (Original) The availability system of claim 10 wherein entries to be modified or deleted are determined by the date of travel for the seat in comparison to the current date.

19. (Previously Presented) A computer program product residing on a computer readable medium for managing a cache for predicting availability information for a mode of transportation, comprises instructions to cause a computer to:

proactively determine whether a stored answer in the cache is stale, the stored answer corresponding to seat availability information for a seat on the mode of transportation, with instructions to determine being based on a determined criterion for seat availability information, which criterion is determined based on needs of a travel planning system that makes queries to the cache for obtaining the seat availability information; and,

update the stored answer in the cache when the stored answer is stale by sending an availability query to a source of availability information for the mode of transportation.

20. (Previously Presented) The computer program product of claim 19, wherein the mode of transportation is air and the product further comprising instructions to:

monitor availability queries made to the cache by a travel planning system to determine which flights, sets of flights, the flights for a certain day, date, or market have a high demand for availability information.

21. (Previously Presented) The computer program product of claim 19 further comprising instructions to:

schedule a list of keys where the keys are identifiers of specific instances to update or add and for each entry on the list in the order given,

submit a query to the availability source; and

store the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

22. (Previously Presented) The computer program product of claim 19 further comprising instructions to:

schedule multiple lists, by processing one entry from each list by a round-robin polling through the lists in turn until one entry has been processed from each list,

return to the first list to process the next entry;

generate an entry for each entry on the list in the order given;

submit a query to the availability source; and

store the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

23. (Previously Presented) A computer program product for determining seat availability in a travel planning system comprises instructions to cause a computer to:

cache entries of seat availability information for a mode of transportation; and

manage a quality level of the entries of seat availability information in the cache by evaluating entries in the cache according to a criterion determined based on needs of a travel planning system that makes queries to the cache for seat availability information, to determine when an entry in the cache should be added, deleted or modified;

delete or modify the entry based on determining that the entry should be deleted or modified; and

proactively populate the cache by sending an availability query to a source of seat availability information for the mode of transportation based on determining the entry should be added or modified.

24. (Previously Presented) The computer program product of claim 23 wherein entries to be added, modified, or deleted are obtained by asynchronous notification from external systems.

25. (Previously Presented) The computer program product of claim 24 wherein entries to be added, modified, or deleted are taken from a list or multiple lists of predetermined entries.

26. (Previously Presented) The computer program product of claim 25 wherein the entries in the list include predetermined orderings or priorities.

27. (Previously Presented) The computer program product of claim 24 wherein entries to be added, modified, or deleted are determined from the distribution or nature of availability queries posed to the cache.

28. (Previously Presented) The computer program product of claim 24 wherein entries to be added, modified, or deleted are determined by using a predictor or model of availability queries which are likely to be posed or are likely to be useful in the future.

29. (Previously Presented) The computer program product of claim 28 wherein the predictor or model of availability queries likely to be posed is based on at least one of deterministic, probabilistic, statistical classifier or predictor, databases, cache of historical data or previously predicted simulations of availability systems and actual availability data sources.

30. (Previously Presented) A method for managing availability information for a seat on a mode of transportation, comprises:

determining which entries to add, delete, or update in the cache by monitoring and examining availability queries made to the cache by a travel planning system to determine which instances of transportation have a high demand for availability information;

proactively updating entries in the cache if an instance of transportation is determined to have a higher than average or higher than expected demand.

31. (Previously Presented) The method of claim 30 wherein the mode of transportation is air and the instances of transportation are flights, which include flights, a certain day, date, or market, which are added to the cache earlier or refreshed more often than the flights would otherwise have been added or refreshed, to make sure the information is fresh.

32. (Previously Presented) The method of claim 30 further comprising:

observing and parsing queries made to the cache by a travel planning system; and

updating a list of entries queried along with a frequency count tallying the number of times each entry has been accessed; and

based on frequency of access determining whether the entry should be added or deleted from the cache, whether priority should be raised or lowered to freshen the data for that entry from the availability source more or less often.